

ST HILDA'S COLLEGE, OXFORD NEW UNDERGRADUATES

Reading List for Experimental Psychology and PPL

Any relatively up-to-date undergraduate textbook in psychology. The following would be ideal, as it includes contributions by several present and former members of the Oxford Psychology Department:

Miles Hewstone, Frank Fincham and Jonathan Foster (Editors). *Psychology*. BPS Textbooks in Psychology, Blackwell Publishing (2005).

The following are used as core psychology textbooks during the 1st year (NB: earlier editions are usually fine. Note that you will only be using a limited amount from each book during Prelims):

- Slater, A. & Bremner, A. (2011) An Introduction to Developmental Psychology, 2nd edition. Oxford: Blackwell.
- Hewstone, M., Stroebe, W. & Jonas, K (2012) *An Introduction to Social Psychology, 5th edition*. Oxford: Blackwell.
- Bruce V, Green PR, Georgeson MA (2007) *Visual Perception: Physiology, Psychology and Ecology* 5th edition). Psychology Press.
- Eysenck MW, Keane MT (2015) Cognitive Psychology: A Student's Handbook (7th edition). Hove: Psychology Press.

Carlson NR (2014) *Physiology of Behavior* (11th edition). Harlow, Essex: Pearson.

If you plan to study Neurophysiology, the following textbook is used:

Bear MF, Connors B, Paradiso M (2008) *Neuroscience: exploring the brain* (3rd edition or later). Lippincott Williams and Wilkins.

Note that all PPL and EP students must study statistics. There are two recommended textbooks for the statistics part of the course:

Statistical Methods for the Social Sciences Agresti and Finlay (4th Edition or later) Pearson, UK

Statistical Methods for Psychology David Howell (4th Edition or later) Wadsworth, USA

Other useful books (certainly not necessary or expected to read them all, but try to read a few):

Alan Baddeley: Your Memory: A User's Guide. Carlton, 2004

Lisa Feldman Barrett: Seven and a Half Lessons About the Brain; Picador, 2021.

Sarah Jayne Blakemore: Inventing Ourselves: The Secret Life of the Teenage Brain. Doubleday, 2018.

Matthew Cobb: The Idea of the Brain: The Past and Future of Neuroscience; Profile, 2021.

Margaret Donaldson: Children's Minds. Fontana, 1978.

Lisa Genova: *Remember: The Science of Memory and the Art of Forgetting*; Penguin Random House, 2021.

Alison Gopnik: The Philosophical Baby. Bodley Head, 2009.

Susan Greenfield: *The Human Brain*. Phoenix, 1998 (Useful background for Neurophysiology as well as Psychology).

Richard Gregory: *Eye and Brain: The Psychology of Seeing, 5th Edition*. Oxford University Press, 1998.

Christian Jarrett: Rough Guide to Psychology; Rough Guides, 2011

Christian Jarrett: 30-Second Psychology. Icon Books, 2011.

Daniel Kahneman: Thinking Fast and Slow. Allen Lane, 2011.

Eric Kandel: The Disordered Brain: What Unusual Minds Tell Us About Ourselves. Robinson, 2018

Jenni Ogden: Trouble in Mind: Stories from a Neuropsychologist's Casebook; Oxford University Press, 2012

Oliver Sacks: An Anthropologist on Mars, Picador Press, 1995

Anil Seth: 30-Second Brain. Icon Books, 2014



Hello, student! Congratulations on your final school results and welcome to Oxford.

My name is Jill O'Reilly.

I'm an Associate Professor in Psychology and, together with my colleague Lindsay Richards I teach the course "Introduction to Probability Theory and Statistics" which makes up 1/3 of the first year for Psychology and PPL students.

In the first year statistics course we will be working with a coding language called Python. We will use Python to analyse and present data, and to better understand statistical concepts. Later in your degree you will also use Python to make experimental stimuli and tasks – it is an extremely popular coding language in the fields of neuroscience and neuroimaging, and is the technology behind most online psychology experiments.

Outside of academia, Python is one of the most popular languages used by data scientists worldwide and is a great transferable skill to have (it is actually a general purpose coding language and if you get into it, you could use it to develop web apps, control robots and almost anything else you could think of).

Most of you will not have any experience with coding and that's OK. However, you will have a much smoother ride if you do some preparatory work before coming up to Oxford in October. I therefore strongly recommend you work through an online Python Basics course such as the one I suggest below. This should take you a couple of days and if you do it before you come up, whilst you have the time to work at a relaxed pace and enough head space to take it in, you will really benefit.

I am recommending some modules on a website called datacamp.com. All the material I am recommending is free (although you do have to create an account) and runs online – you can do it in any web browser on your laptop or tablet and do not need to install software.

The website gives you hints and can reveal the answer if you get stuck (but try not to do this unless you have to as in coding, you learn by solving problems yourself!)

There will be a chance in the first week of term to review the preparatory work (and do a little more prep) with support from me and my team of tutors, so if you do get stuck, don't panic! But I do recommend you work through as much of the material below as you can, in advance.

Read on.....

Recommended prep work

I recommend a website called <u>datacamp</u>.com.



Create a (free) account and go into "skills tracks \rightarrow Python" Select **Python Fundamentals**.

Within **Python Fundamentals** there are four "courses". I'm recommending you work through course 1 (Introduction to Python) and the first section of course 2 (Intermediate Python). That would mean covering the following (free) modules:

Introduction to Python

Basics Lists Functions and Packages NumPy

Intermediate Python

Matplotlib

According to datacamp.com, it should take you about 5 hours to work through that material, although I do think it may take longer for people unfamiliar with coding.

I'd recommend doing as many of the activities and assignments within these modules as you can – in coding, you learn by doing.

If you enjoy it, or want more practice, you could create a paid-for account at datacamp which unlocks a lot more material. However this is not necessary as prep for my course. Alternatively, there are many more online resources for learning Python. Codecademy.com is good and is free for one week (but you have to give your bank details and if you forget to cancel before the week is up you will be charged, so watch out!). W3schools is also a good reference. If you get into it, websites like Kaggle host data hacking contests where you can really hone your skills. A world of data fun awaits...!